

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An apparatus for preventing leakage of a material inside a bulb for a plasma lighting system, comprising:

a bulb containing ~~a~~an electric discharge material therein for emitting light as the electric discharge material becomes a plasma state by an electric field; and

a magnetic field forming portion for preventing the electric discharge material of a plasma state from being leaked by an external electric field of the bulb by forming a magnetic field at a peripheral portion of the ~~bulb~~bulb,

wherein the magnetic field forming portion forms a magnetic field as a wedge shape so that the electric discharge material is positioned at a center of the bulb.

2. (Canceled)

3. (Currently Amended) The apparatus of claim 1, wherein the electric discharge material comprises sodium (Na).

4. (Canceled)

5. (Currently Amended) An apparatus for preventing leakage of a material inside a bulb for a plasma lighting system, comprising:

a resonator;

a bulb received in the resonator and containing ~~a~~an electric discharge material therein for emitting light as the electric discharge material becomes a plasma state by an electric field; and

a magnetic field forming portion for preventing the electric discharge material of a plasma state from being leaked by an external electric field of the bulb by forming a magnetic field at a peripheral portion of the ~~bulb~~bulb,

wherein the magnetic field forming portion forms a magnetic field as a wedge shape so that the electric discharge material be positioned at a center of the bulb.

6. (Canceled)

7. (Currently Amended) The apparatus of ~~claim 6~~ claim 5, wherein the magnetic field forming portion is implemented as an electromagnet.

8. (Currently Amended) The apparatus of ~~claim 6~~ claim 5, wherein the magnetic field forming portion is implemented as a permanent magnet.

9. (Currently Amended) The apparatus of claim 5, wherein the electric discharge material comprises Na.

10. (Canceled)

11. (Currently Amended) An apparatus for preventing leakage of a material inside a bulb for a plasma lighting system, comprising:

a casing;

a magnetron mounted in the casing;

a wave guide connected to the magnetron for guiding electromagnetic wave;

a resonator connected to the wave guide for resonating electromagnetic wave;

a bulb received in the resonator and containing ~~a~~ an electric discharge material therein for emitting light as the electric discharge material becomes a plasma state by an electric field; and

a magnetic field forming portion for preventing the electric discharge material of a plasma state from being leaked by an external electric field of the bulb by forming a magnetic field at a peripheral portion of the ~~bulb~~ bulb.

wherein the magnetic field forming portion forms a magnetic field as a wedge shape so that the electric discharge material be positioned at a center of the bulb.

12. (Canceled)

13. (Currently Amended) The apparatus of ~~claim 12~~ claim 11, wherein the magnetic field forming portion is implemented as an electromagnet.

14. (Currently Amended) The apparatus of ~~claim 12~~ claim 11, wherein a reflector having the resonator therein for forwardly reflecting light generated from the bulb is installed at a front side of the casing.

15. (Currently Amended) The apparatus of claim 14, wherein the magnetic field forming portion is installed accordingly as the electromagnet is mounted in a housing of the magnetic field forming portion and the housing of the magnetic field forming portion is positioned at an outer circumferential surface of the reflector.

16. (Currently Amended) The apparatus of ~~claim 12~~ claim 11, wherein the magnetic field forming portion is installed accordingly as the electromagnet is mounted in a housing and the housing is coupled to the casing.

17. (Currently Amended) The apparatus of ~~claim 12~~ claim 11, wherein the magnetic field forming portion is implemented as a permanent magnet.

18. (Original) The apparatus of claim 17, wherein the permanent magnet is attached to an outer circumferential surface of the casing.

19. (Currently Amended) The apparatus of claim 11, wherein the electric discharge material comprises Na.

20. (Canceled)